

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

NOTICE OF RELEASE OF SOURCE IDENTIFIED GERMPLASM
PELICAN BLACK MANGROVE

The USDA, Soil Conservation Service announces the naming and release of source-identified Pelican black mangrove, *Avicennia germinans* (L.) L.

Pelican black mangrove has been assigned the SCS accession number 9068220.

Pelican black mangrove originates from a native stand of black mangroves located near Bayou Tartellon and state highway 3090 in Lafourche Parish, Louisiana, 29° 10' N Latitude, 90° 10' W Longitude, SE ¼ SW ¼ Section 13-T23S-R22E, MLRA 151- Gulf Coast Marsh. The site is the property of The Louisiana Land and Exploration Company.

Pelican black mangrove is typical of black mangroves found growing along the Louisiana coast. It is of short stature attaining 1.2-3 meters tall. Leaves are opposite, evergreen, 6-8 cm wide, elliptic to obovate, dark-green and glabrous above, and pale-gray tomentose below. Flowers are sessile with white corolla, and four stamens. Fruit is a flat asymmetric, one-seeded pod with a velvety pericarp. The Pelican ecotype is selected because of (1) the northern extension of its range in Louisiana, and (2) its persistence after winter freezes in 1983 and 1989.

The site for the Pelican source consists of Scatlake much, silty clay loam (sicl) in the upper five inches of soil, and clay (c) below five inches. The Scatlake series is a saline, semifluid, mineral soil. Soil salinity for the Scatlake series can range in electrical conductivity (EC) from 8-16 mmhos/cm. Soil reaction (pH) can range from 7.4-8.4. The site is on a narrow intertidal flat that is nearly level to concave at or just above sea level.

Climate is subtropical, and humid with a mean annual precipitation of 150.7 cm per year. Most of the annual rainfall occurs from April through September. Mean annual temperature is 20° C with an average daily maximum of 25° C. Prevailing winds are from the southeast.

The Pelican black mangrove source site is dominated by black mangrove. Plants found in association include *Spartina alterniflora* Loisel. (smooth cordgrass), *Distichlis spicata* (L.) Greene (salt grass), and *Batis maritima* L. (saltwart).

Black mangroves are the most cold hardy of the North American mangroves and they are the only mangrove species found growing in Louisiana. Black mangroves can be found growing in the intertidal zone of Louisiana's salt marshes, protected shallow bays, and barrier islands east of Atchafalaya Bay. Black mangroves are distinguished by aerial roots known as pneumatophores. Black mangroves are facultative halophytes, which can persist in strongly saline habitats.

Black mangroves are very important to coastal ecosystems by (1) stabilizing soils with their extensive root systems, (2) contributing biomass to the detrital cycle, and (3) providing valuable habitat for brown pelicans and other shorebirds.

Black mangrove can be successfully established using container-grown plants propagated from seed or with vegetative cuttings. Stands can be established by direct seeding but survival has generally been low. Fruit of black mangrove is viviparous and is considered unorthodox in that the seed is recalcitrant (desiccant

sensitive). The seed is also very cold sensitive. Seed can be successfully germinated using fresh or saline water and maintaining temperatures above **18" C**.

Seeds of Pelican black mangrove can be hand harvested from plants in late October through mid December. Black mangrove seeds are capable of floating for long periods of time without losing viability, so seeds can often be found deposited along shorelines where they can easily be picked up. Seeds of black mangrove should be planted soon after collecting. If storage is necessary, seeds should be placed in moist peat or burlap bags at 10-16° C. Floating seeds in water is another option if holding for short periods is necessary until the seed can be planted. Seedlings of black mangrove can generally be transplanted to target sites 12 months after seeding to containers. Black mangrove seedlings have been successfully planted in sheltered areas where they are not exposed to heavy wave action. Plant seedlings near or just above high tide in areas where wave energy may present problems to successfully establishing black mangrove. The best time to plant containerized propagules is early spring.

Foundation seed used for commercial production is available from the USDA, Soil Conservation Service, Golden Meadow Plant Materials Center, 438 Airport Road, Galliano, Louisiana. The Center can be reached by phone at **(504) 475-5280** or by **F A X** at **(504) 475-6545**. Foundation seed is only available during late October through mid December.

References

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RELEASE OF SOURCE IDENTIFIED PELICAN BLACK MANGROVE

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Date